



FOR IMMEDIATE RELEASE

Ground-breaking academic paper, led by a Kiwi conservationist, reveals the behavioural crisis driving anthropogenic ecological overshoot and immediate actions needed.

(20 September 2023) - A ground-breaking peer-reviewed paper has been published today by a collection of well-known scientists, academics and behavioural science practitioners led by New Zealand-based conservationist, Joseph Merz, of the Merz Institute.

The paper, published by Sage on 20 September 2023, details how our modern human behaviour is causing us to consume our natural resources at rates faster than they can be replenished, while also creating waste in excess of what the Earth can assimilate. The authors name and frame this existential threat the **'Human Behavioural Crisis'** and propose that the crisis, which stems from maladaptive human behaviours, be recognised globally as a critical intervention point for tackling ecological overshoot (and its symptoms like climate change).

The authors, led by Merz, demonstrate that our previously adaptive human impulses have been exploited for-profit to the point that the resultant behaviours have become extremely maladaptive, threatening complex life on Earth.

*"In this paper, we use the term **'behavioural crisis'** specifically to mean the consequences of the innate suite of human behaviours that were once adaptive in early hominid evolution, but have now been exploited to serve the global industrial economy."*

"This exploitation has accumulated financial capital – sometimes to absurd levels – for investors and shareholders, and generated manufactured capital ('human-made mass') that now exceeds the biomass of all living things on Earth. Significantly manipulated by the marketing industry, which several of us represent, these behaviours have now brought humanity to the point where their sheer scale – through our numbers, appetites and technologies – is driving ecological overshoot and threatening the fabric of complex life on Earth" (Merz, et al., 2023).

This **"human behavioural crisis"** highlights the need not to address just the symptoms of ecological overshoot like climate change, but the drivers and enablers of the behaviours that are causing it.

Co-author, Mike Joy (Victoria University; Merz Institute) says, "As an ecologist trying to understand the ecocidal tendencies of humankind, I have become ever more aware of the crucial importance of understanding the drivers of human behaviour".

The paper came about after Merz noticed that there was very little research or literature explicitly focused on behaviour regarding our current ecological predicament. He and his colleagues believe that looking at this issue through a behavioural lens more easily exposes the root causes of our outlandish appetites.

"The current emphasis for overshoot intervention is resource intensive (e.g. the global transition to renewable energy) and single-symptom focused. Indeed, most mainstream attention and investment is directed towards mitigating and adapting to climate change. Even if this narrow intervention is successful, it will not resolve the meta-crisis of ecological overshoot, in fact, with many of the current resource-intensive interventions, it is likely to

make matters worse. Psychological interventions are likely to prove far less resource-intensive and more effective than physical ones.” (Merz, et al., 2023)

Merz explains, “We can choose where we intervene with threats like overshoot and climate change. Do we intervene downstream at a symptom level by still enabling our ever-increasing and often absurd appetites, or do we address the drivers of those appetites - the ultimate drivers of the behavioural crisis?”

“We must work to create new social norms that bring our appetites and behaviours back within planetary boundaries. The best thing is, for many of us it doesn't have to hurt. Many people living in affluent countries exist so far beyond sufficiency it's possible to maintain good living standards on a fraction of their current energy use.”

Merz suggests that the findings in the paper are vital in that they highlight a critical intervention point and thus have the potential to increase the likelihood of humanity successfully addressing the issue of overshoot (and its symptoms like climate change).

Co-author Mat Maroni puts forward, *“This paper is a call to action. It is a new way to frame an issue that deserves a better conversation. To address anthropogenic ecological overshoot (and with it, climate change), we can start by reframing the collective social norms that drive it. Good things will happen when we find new ways to connect scientists and storytellers”.*

The clock is ticking not only because the health of the natural systems upon which we are utterly dependent is deteriorating but also because broad scale interventions are only possible when a society holds together and is capable of coherent action. As the effects of overshoot worsen, the likelihood of societal breakdown increases.

Given this urgency, the paper concludes with a call for:

- Increased attention on the behavioural crisis as a critical intervention point for addressing overshoot and its myriad symptoms.
- Increased interdisciplinary collaboration between the social and behavioural science theorists and practitioners, advised by scientists working on limits to growth and planetary boundaries.
- Additional research to develop a full understanding of the many dimensions of the behavioural crisis (including the overwhelming influence of power structures) and how it can best be addressed.
- An emergency, concerted, multidisciplinary effort to target the populations and value levers most likely to produce rapid global adoption of new consumption, reproduction and waste norms congruent with the survival of complex life on earth.
- Increased interdisciplinary work to be carried out in directing, understanding and policing widespread behaviour manipulation.

“In summary, the evidence indicates that anthropogenic ecological overshoot stems from a crisis of maladaptive human behaviours which have been distorted and extended to the point where they now threaten the fabric of complex life on earth. Simply, we are trapped in a system built to encourage growth and appetites that will end us.”

Amongst Merz' co-authors are renowned ecological economist and Co-Founder of the ecological footprint, Professor Bill Rees; Rory Sutherland, the Vice Chairman of global advertising giant, Ogilvy; and renowned New Zealand-based freshwater ecologist, Dr Mike

Joy.

The Merz Institute is currently working to address the behavioural crisis through their Overshoot Behaviour Lab.

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“World scientists’ warning: The behavioural crisis driving ecological overshoot”. Science Progress, Vol. 106 (3) 1–22. 2023. Sage Publications.

OVERVIEW OF AUTHORS

Joseph J Merz - Co-founder of Merz Institute, a research institute largely focused on addressing ecological overshoot at a behavioural level. Joseph is a co-founder of a number of organizations, including Founder and Chairman of the Merz Institute. Joseph serves on the Executive Committee of the Stable Planet Alliance, and is also a Senior Fellow of the Global EverGreening Alliance.

Phoebe Barnard (PhD) - Professor of environmental and societal futures and global change science at University of Washington, climate vulnerability research associate at University of Cape Town, CEO of the global coalition Stable Planet Alliance, and cofounder of the Global

Restoration Collaborative, (a young process to drive and reframe our economy and civilisation to regenerative alternatives).

Working for 34 years in Namibia at its independence from colonial rule, and South Africa at its transition to post-apartheid democracy, she brings the “What is, to what if?” frames that these countries considered at their historical crossroads to the challenges now faced by humanity as a whole. Working with youth, women and indigenous networks for transformative change, she was granted a Fulbright Fellowship, a Society for Conservation Biology Distinguished Service Award (with Sir David Attenborough and Dame Prof Georgina Mace) and Forbes Distinguished Achievement Award.

William E Rees - Human ecologist, ecological economist, former Director and Professor Emeritus of the University of British Columbia's School of Community and Regional Planning in Vancouver, Canada.

His research focuses on the ecological requirements for sustainable development and on the behavioural and socio-cultural barriers to change. Best known as originator and co-developer with his PhD students of ‘ecological footprint analysis’, Prof Rees has authored almost 200 peer-reviewed and numerous popular articles on sustainability policy. His work is widely awarded internationally.

Dane Smith (BPsych, Hons) - Applied Behavioural Scientist

Dane has spent the past decade working in the advertising industry. He currently leads Ogilvy Australia's Behavioural Science Practice and services a mixture of government and private sector clients across APAC as the company's Regional Consulting Partner.

Mat Maroni - Strategic Lead at Merz Institute's Overshoot Behaviour Lab, and Chief Strategy Officer Asia Pacific for one of the largest global advertising networks.

He has been at the forefront of communication strategy across Europe and Asia Pacific for the last 20 years, advising brands both within agencies and directly as a consultant. Across this time he has delivered globally recognised, multi-award winning campaigns and authored for a range of industry media and the World Advertising Research Center.

Christopher J Rhodes - Director of the consultancy, Fresh-lands Environmental Actions, and a Board member of Scientists Warning Europe.

He became a full professor in physical chemistry in his early 30s and has published over 250 peer-reviewed academic papers and an extensive online collection of essays and journalism. He has advised on low-carbon energy for the European Commission. Chris holds Fellowships of the Royal Society of Chemistry, the Linnean Society of London, and the Royal Society of Arts. He is Chair of Transition Town Reading (U.K.). He has also published a novel, a collection of poetry and a series of children's picture books.

Julia H Dederer - Board member of Merz Institute and Executive Committee member of Stable Planet Alliance.

Julia has delivered transformational leadership programs nationally and internationally for over four decades. During this time she co-led programs for the Global Women's Leadership Network as well as serving as Chief of Staff for climate restoration not-for-profit, Methane Action. Julia is dedicated to empowering individuals and organizations across climate and ecosystem restoration. She currently serves on the boards of the Merz Institute and the Foundation for Climate Restoration and is an Executive Committee member of the Stable Planet Alliance.

Nandita Bajaj (Bed, BEng, MEd) - Executive Director of the Population Balance.

Population Balance is a US nonprofit that works to inspire behavioural and system change towards a smaller human footprint that embraces planetary boundaries. She is an adjunct lecturer at the Institute for Humane Education at Antioch University, where she teaches about the combined impacts of pronatalism and human expansionism on reproductive, ecological, and intergenerational justice. In addition to a number of peer-reviewed papers and forthcoming book chapters, her work has appeared in major news outlets including Canadian Broadcasting Corporation, The Washington Post, The Guardian, Newsweek, Ms. Magazine, The Globe and Mail, and National Post. Nandita has an MEd. (Humane Education) from Antioch University, a BEng. (Aerospace Engineering) from Toronto Metropolitan University, and a BEd. from the University of Toronto.

Michael K Joy (PhD) - Freshwater Ecologist at Victoria University and board member at Merz Institute.

Michael has been working for three decades at the interface of science and policy in New Zealand. He has published scientific papers in many fields from artificial intelligence and data mining, freshwater fish ecology, freshwater bioassessment to the freshwater ecology of sub-Antarctic islands. As a senior researcher at Victoria University of Wellington he now works on improving the connection between science, policy, and real outcomes to address the multiple environmental issues facing New Zealand. Mike serves on the board of the Merz Institute, a not-for-profit largely focused on addressing ecological overshoot at a behavioural level. He has received multiple awards for this work including the 2013 Royal Society of New Zealand Charles Fleming Award for protection of the New Zealand environment, the Morgan Foundation inaugural River Voice Award and the inaugural New Zealand Universities Critic and Conscience award.

Thomas Wiedmann - Professor of sustainability research at UNSW Sydney, Australia. He has long-standing expertise in integrated, quantitative sustainability assessment, industrial ecology and environmental footprint analysis and has published 140 journal papers and 123 other scientific publications. His recent research is focusing on sustainable transformations towards post-growth economies.

Rory Sutherland - Vice Chairman at Ogilvy.

Rory worked at Ogilvy since 1988. He is the author of two books, one essentially on the phenomenology of marketing (Alchemy: The surprising Power of Ideas that Don't Make Sense) and (co-authored with Pete Dyson) Transport for Humans on the psychology of transportation. He has an Honorary Doctorate from Brunel University and is a Honorary Professor at the University of Warwick. He has been elected a fellow of The Marketing Society, The Institute of Practitioners in Advertising, the British Interactive Marketing Association and the Institute of Direct Marketing. He has written a fortnightly column for The Spectator since 2008, along with occasional pieces for Wired, The Telegraph and The Times. He has spoken at TED, TEDxAthens, and at countless industry events.